Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for implementing post-heat treatment during spray forming to achieve stress control in the manufacture of a spray formed metallic tool, comprising:

applying a metallic spray-forming material at a preselected application temperature upon a mold substrate heated to a preselected substrate temperature disposed within a spray forming cell environment heated to a preselected spray forming cell environment temperature in the manufacture of a spray-formed tool;

causing preselected substantially homogenous metallic phase transformations from an austenite phase of the spray forming material to a substantially homogenous distribution of commingled metallic phases consisting of a predetermined proportion of at least one of a bainite phase, a pearlite-ferrite phase, and a ~~martinsite~~ martensite phase of the spray forming material; and

wherein the substantially homogenous metallic phase transformations are caused at least in part via manipulation of at least one of the substrate temperature and the spray forming cell environment temperature.

2. (Previously Presented) The method of claim 1, wherein causing the metallic phase transformations further comprises causing substantially homogenous volumetric changes in the spray forming material associated at least in part with the metallic phase transformations of the spray forming material.

3. (Currently Amended) The method of claim 2, wherein causing the metallic phase transformations further comprises causing the metallic phase transformations to the substantially homogenous distribution of commingled metallic phases consisting of the predetermined proportion of at least one of the bainite phase, the pearlite-ferrite phase, and the

~~martinsite~~ martensite phase and a predetermined proportion of the austenite phase of the spray forming material.

4. (Previously Presented) The method of claim 1, wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining at least one of the mold substrate and the spray forming cell environment at the preselected temperature that is at least as great as the preselected application temperature for a predetermined time interval and thereafter decreasing the temperature of the at least one of the mold substrate and the spray forming cell environment to a second preselected temperature that is less than the preselected application temperature.

5. (Currently Amended) The method of claim 4, wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises decreasing the temperature of the at least one of the mold substrate and the spray forming cell environment to the second preselected temperature that is less than the preselected application temperature and greater than a ~~martinsite~~ martensite start temperature of the spray forming material.

6. (Currently Amended) The method of claim 5, wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining the at least one of the mold substrate and the spray forming cell environment at the second preselected temperature for a second predetermined time interval and thereafter decreasing the temperature of the at least one of the mold substrate and the spray forming cell environment to a third preselected temperature that is less than the preselected application temperature and less than the ~~martinsite~~ martensite start temperature of the spray forming material.

7. (Currently Amended) The method of claim 4, wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises decreasing the temperature of the at least one of the mold substrate and the

spray forming cell environment to a second preselected temperature that is less than the preselected application temperature and less than a ~~martinsite~~ martensite start temperature of the spray forming material.

8. (Cancelled)

9. (Currently Amended) The method of claim [[8]] 17, wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining both the mold substrate and the spray forming cell environment at the second preselected temperature for a second predetermined time interval and thereafter decreasing the temperature of both the mold substrate and the spray forming cell environment to a third preselected temperature that is less than the preselected application temperature and less than the ~~martinsite~~ martensite start temperature of the spray forming material.

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) The method of claim [[11]] 19, wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining the spray forming cell environment at the second preselected temperature for a second predetermined time interval and thereafter decreasing the temperature of the spray forming cell environment to the second preselected temperature that is less than the preselected application temperature and less than the ~~martinsite~~ martensite start temperature of the spray forming material.

13. (Cancelled)

14. (Currently Amended) The method of claim 4, wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining the mold substrate at the preselected temperature that is at least as great as the preselected application temperature for the predetermined time interval and thereafter decreasing the temperature of the mold substrate to the second preselected temperature that is less than the preselected application temperature and greater than a ~~martinsite~~ martensite start temperature of the spray forming material.

15. (Currently Amended) The method of claim 14, wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining the mold substrate at the second preselected temperature for a second predetermined time interval and thereafter decreasing the temperature of the mold substrate to the second preselected temperature that is less than the preselected application temperature and less than the ~~martinsite~~ martensite start temperature of the spray forming material.

16. (Currently Amended) The method of claim 4, wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining the mold substrate at the preselected temperature that is at least as great as the preselected application temperature for the predetermined time interval and thereafter decreasing the temperature of the mold substrate to the second preselected temperature that is less than the preselected application temperature and less than a ~~martinsite~~ martensite start temperature of the spray forming material.

17. (New) A method for implementing post-heat treatment during spray forming to achieve stress control in the manufacture of a spray formed metallic tool, comprising:

applying a metallic spray-forming material at a preselected application temperature upon a mold substrate heated to a preselected substrate temperature disposed

within a spray forming cell environment heated to a preselected spray forming cell environment temperature in the manufacture of a spray-formed tool;

causing preselected substantially homogenous metallic phase transformations from an austenite phase of the spray forming material to a substantially homogenous distribution of commingled metallic phases consisting of a predetermined proportion of at least one of a bainite phase, a pearlite-ferrite phase, and a martensite phase of the spray forming material;

wherein the substantially homogenous metallic phase transformations are caused at least in part via manipulation of at least one of the substrate temperature and the spray forming cell environment temperature;

wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining at least one of the mold substrate and the spray forming cell environment at the preselected temperature that is at least as great as the preselected application temperature for a predetermined time interval and thereafter decreasing the temperature of the at least one of the mold substrate and the spray forming cell environment to a second preselected temperature that is less than the preselected application temperature; and

wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining both of the mold substrate and the spray forming cell environment at the preselected temperature that is at least as great as the preselected application temperature for the predetermined time interval and thereafter decreasing the temperature of both of the mold substrate and the spray forming cell environment to the second preselected temperature that is less than the preselected application temperature and greater than a martensite start temperature of the spray forming material.

18. (New) A method for implementing post-heat treatment during spray forming to achieve stress control in the manufacture of a spray formed metallic tool, comprising:

applying a metallic spray-forming material at a preselected application temperature upon a mold substrate heated to a preselected substrate temperature disposed

within a spray forming cell environment heated to a preselected spray forming cell environment temperature in the manufacture of a spray-formed tool;

causing preselected substantially homogenous metallic phase transformations from an austenite phase of the spray forming material to a substantially homogenous distribution of commingled metallic phases consisting of a predetermined proportion of at least one of a bainite phase, a pearlite-ferrite phase, and a martensite phase of the spray forming material;

wherein the substantially homogenous metallic phase transformations are caused at least in part via manipulation of at least one of the substrate temperature and the spray forming cell environment temperature;

wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining at least one of the mold substrate and the spray forming cell environment at the preselected temperature that is at least as great as the preselected application temperature for a predetermined time interval and thereafter decreasing the temperature of the at least one of the mold substrate and the spray forming cell environment to a second preselected temperature that is less than the preselected application temperature; and

wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining both the mold substrate and the spray forming cell environment at the preselected temperature that is at least as great as the preselected application temperature for the predetermined time interval and thereafter decreasing the temperature of both the mold substrate and the spray forming cell environment to the second preselected temperature that is less than the preselected application temperature and less than a martensite start temperature of the spray forming material.

19. (New) A method for implementing post-heat treatment during spray forming to achieve stress control in the manufacture of a spray formed metallic tool, comprising:

applying a metallic spray-forming material at a preselected application temperature upon a mold substrate heated to a preselected substrate temperature disposed

within a spray forming cell environment heated to a preselected spray forming cell environment temperature in the manufacture of a spray-formed tool;

causing preselected substantially homogenous metallic phase transformations from an austenite phase of the spray forming material to a substantially homogenous distribution of commingled metallic phases consisting of a predetermined proportion of at least one of a bainite phase, a pearlite-ferrite phase, and a martensite phase of the spray forming material;

wherein the substantially homogenous metallic phase transformations are caused at least in part via manipulation of at least one of the substrate temperature and the spray forming cell environment temperature;

wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining at least one of the mold substrate and the spray forming cell environment at the preselected temperature that is at least as great as the preselected application temperature for a predetermined time interval and thereafter decreasing the temperature of the at least one of the mold substrate and the spray forming cell environment to a second preselected temperature that is less than the preselected application temperature; and

wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining the spray forming cell environment at the preselected temperature that is at least as great as the preselected application temperature for the predetermined time interval and thereafter decreasing the temperature of the spray forming cell environment to the second preselected temperature that is less than the preselected application temperature and greater than a martensite start temperature of the spray forming material.

20. (New) A method for implementing post-heat treatment during spray forming to achieve stress control in the manufacture of a spray formed metallic tool, comprising:

applying a metallic spray-forming material at a preselected application temperature upon a mold substrate heated to a preselected substrate temperature disposed

within a spray forming cell environment heated to a preselected spray forming cell environment temperature in the manufacture of a spray-formed tool;

causing preselected substantially homogenous metallic phase transformations from an austenite phase of the spray forming material to a substantially homogenous distribution of commingled metallic phases consisting of a predetermined proportion of at least one of a bainite phase, a pearlite-ferrite phase, and a martensite phase of the spray forming material;

wherein the substantially homogenous metallic phase transformations are caused at least in part via manipulation of at least one of the substrate temperature and the spray forming cell environment temperature;

wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining at least one of the mold substrate and the spray forming cell environment at the preselected temperature that is at least as great as the preselected application temperature for a predetermined time interval and thereafter decreasing the temperature of the at least one of the mold substrate and the spray forming cell environment to a second preselected temperature that is less than the preselected application temperature; and

wherein the manipulation of at least one of the substrate temperature and the spray forming cell environment temperature further comprises maintaining the spray forming cell environment at the preselected temperature that is at least as great as the preselected application temperature for the predetermined time interval and thereafter decreasing the temperature of the spray forming cell environment to the second preselected temperature that is less than the preselected application temperature and less than a martensite start temperature of the spray forming material.